Amendments to the Claims

Kindly add new claims 11-20, and amend claims 1, 3 and 7-10, as set forth below. In compliance with the Revised Amendment Format published in the Official Gazette on February 25, 2003, a complete listing of claims is provided herein. The changes in the amended claims are shown by strikethrough (for deleted matter) and underlining (for added matter).

1. (Currently Amended) A method for providing security services in a clustered data processing environment, said method comprising ~~the steps of~~:

~~providing an access program layer on at least two data processing nodes of said clustered environment, said layer presenting a consistent security interface, from at least two of said nodes to two at least two types of security program module which implement a security service on different nodes within said cluster, to applications which run on said nodes and which access a same one of said at least two types of security program modules on different nodes, through said consistent interface; and~~

~~providing at least one adapter module for each security program module, wherein said at least one adapter module maps parameters of said security service to said security interface, whereby applications running on different nodes do not require modification to use different security program modules.~~ providing an access program layer on one data processing node running an application client and another data processing node running an application server, said access program layer presenting a consistent security interface to said application client and said application server, said consistent security interface representing a security mechanism common to said application client and said application server, wherein said application client has one set of security mechanisms available thereto and said application server has another set of security mechanisms available thereto, and wherein at least one of the one set of security mechanisms and the another set of security mechanisms comprises a plurality of security mechanisms; and

providing an adapter module for the common security mechanism, said adapter module mapping one or more parameters of a security service implemented by the common security mechanism to said consistent security interface, whereby applications running on the one data processing node and the another data processing node do not require modification to use different security mechanisms.

2. (Original) The method of claim 1 in which there are a plurality of more than two of said data processing nodes.

3. (Currently Amended) The method of claim 1 in which ~~there are~~each set of security mechanisms comprises a plurality of security ~~program modules~~mechanisms.

4. (Original) The method of claim 1 in which there are a plurality of said adapter modules.

5. (Original) The method of claim 1 in which said access program layer includes authentication and authorization services through said security interface.

6. (Original) The method of claim 1 in which said access program layer includes access control services through said security interface.

7. (Currently Amended) The method of claim 6 in which said access control ~~list~~ services includes entries grouped by at least one characteristic selected from the group consisting of type, mechanism, identity and permission bit mask.

8. (Currently Amended) The method of claim 1 in which said access program layer loads one or more security program modules identified through said security interface.

9. (Currently Amended) A computer readable medium having computer executable instructions causing a computer to provide ~~an access program layer on at least two data processing nodes of said clustered environment, said layer presenting a consistent security interface, from at least two of said nodes to two at least two types of security program module which implement a security service on different nodes within said cluster, to applications which run on said nodes and which access a same one of said at least two types of security program module on different nodes, through said consistent interface; and to provide at least one adapter module for each security program module, wherein said at least~~

~~one adapter module maps parameters of said security service to said security interface, whereby applications running on different nodes do not require modification to use different security program modules.~~ an access program layer on one data processing node running an application client and another data processing node running an application server, said access program layer presenting a consistent security interface to said application client and said application server, said consistent security interface representing a security mechanism common to said application client and said application server, wherein said application client has one set of security mechanisms available thereto and said application server has another set of security mechanisms available thereto, and wherein at least one of the one set of security mechanisms and the another set of security mechanisms comprises a plurality of security mechanisms; and to provide an adapter module for the common security mechanism, said adapter module mapping one or more parameters of a security service implemented by the common security mechanism to said consistent security interface, whereby applications running on the one data processing node and the another data processing node do not require modification to use different security mechanisms.

10. (Currently Amended) A multinode data processing system whose memory contains programming to provide ~~an access program layer on at least two data processing nodes of said clustered environment, said layer presenting a consistent security interface, from at least two of said nodes to two at least two types of security program module which implement a security service on different nodes within said cluster, to applications which run on said nodes and which access a same one of said at least two types of security program module on different nodes, through said consistent interface; and to provide at least one adapter module for each security program module, wherein said at least one adapter module maps parameters of said security service to said security interface, wherein applications running on different nodes do not require modification to use different security program modules.~~ an access program layer on one data processing node running an application client and another data processing node running an application server, said access program layer presenting a consistent security interface to said application client and said application server, said consistent security interface representing a security mechanism common to said application client and said application server, wherein said application client has one set of security mechanisms available thereto and said application server has another set of security

mechanisms available thereto, and wherein at least one of the one set of security mechanisms and the another set of security mechanisms comprises a plurality of security mechanisms; and to provide an adapter module for the common security mechanism, said adapter module mapping one or more parameters of a security service implemented by the common security mechanism to said consistent security interface, whereby applications running on the one data processing node and the another data processing node do not require modification to use different security mechanisms.

11. (New) The method of claim 1, further comprising using the access program layer by the application client and the application server to determine one or more security mechanisms of the one set of security mechanisms and the another set of security mechanisms that are common to the application client and the application server, and to negotiate between themselves which security mechanism of the one or more common security mechanisms is to be used as the common security mechanism.

12. (New) The method of claim 1, further comprising providing at least one adapter module for each security mechanism of the one set of security mechanisms and the another set of security mechanisms.

13. (New) A method for providing security services in a clustered data processing environment, said method comprising:

providing an access program layer on at least two data processing nodes of said clustered environment, said layer presenting a consistent security interface, from at least two of said nodes to at least two types of security program modules which implement a security service on different nodes within said cluster, to applications which run on said nodes and which access a same one of said at least two types of security program modules on different nodes, through said consistent interface; and

providing at least one adapter module for each security program module, wherein said at least one adapter module maps parameters of said security service to said security interface, whereby applications running on different nodes do not require modification to use different security program modules.

14. (New) The method of claim 13 in which there are a plurality of more than two of said data processing nodes.

15. (New) The method of claim 13 in which each set of security mechanisms comprises a plurality of security mechanisms.

16. (New) The method of claim 13 in which there are a plurality of said adapter modules.

17. (New) The method of claim 13 in which said access program layer includes authentication and authorization services through said security interface.

18. (New) The method of claim 13 in which said access program layer includes access control services through said security interface.

19. (New) The method of claim 6 in which said access control services includes entries grouped by at least one characteristic selected from the group consisting of type, mechanism, identity and permission bit mask.

20. (New) The method of claim 1 in which said access program layer loads one or more security program modules identified through said security interface.